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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.                  | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------------|------------------|
| 10/027,843   | 10/19/2001  | Mark DeSilets        | US 018172                            | 2507             |
| 38107  | 7590        | 11/16/2005           |                                      |                  |
| PHILIPS INTELLECTUAL PROPERTY & STANDARDS<br>595 MINER ROAD<br>CLEVELAND, OH 44143 |             |                      | EXAMINER<br>MANTIS MERCADER, ELENI M |                  |
|  |             |                      | ART UNIT                             | PAPER NUMBER     |
|  |             |                      | 3737                                 |                  |

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/027,843

Applicant(s)

DESILETS ET AL.

Examiner

Eleni Mantis Mercader

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX<sup>4</sup>(6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7/19/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19,21,22 and 24-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19,21,22 and 24-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed on 7/19/05 have been fully considered but they are not persuasive. Applicant's amendment to "selectably securable" and the capability of "the first and second housing *being* secured in a fixed abutting position to one another" may not strictly correspond to the embodiments of Figures 2a-2b of Townsend et al.'476, but it certainly corresponds to the embodiment of Figure 2c. Applicant's attention is invited to col. 10, lines 59-63, wherein the gantries are selectably movable with respect to one another along with the bed in order to obtain the images of interest. It would have been obvious to one skilled in the art at the time that the invention was made that the movement of either scanner could be at a fixed abutting position as the one taught by Figure 2b as that is one of the disclosed options of allowing access to the operator.

### *Specification*

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the term "nuclear camera" as now claimed in claim 1 does not have antecedent basis with respect to the specification. The specification must be amended to provide such antecedent basis.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Townsend et al.'476 as evidenced by Zhu'405.

Regarding claim 1, Townsend et al.'476 teach a medical imaging apparatus, comprising:

a first tomographic medical imaging device having an opening for receipt of a subject patient, the first imaging device comprises one of a group consisting of CT, MRI, X-Ray, and Ultrasound devices wherein the imaging information represents anatomical structure(see col. 12, line 49; referring to X-ray CT detector 12 in the first imaging device having an opening 16a; see element 16a in Figure 2b);

a second tomographic medical imaging device having an opening for receipt of the subject patient and the second imaging device comprises one of a group consisting of SPECT and PET devices wherein the imaging information represents physiological functions of the patient (see col. 12, line 50; referring to PET detector 14 in the second imaging device see element 16b in Figure 2b);

an imaging device support structure securing the openings of the first and second imaging devices in a fixed spatial relationship and in alignment with an imaging axis during the formation of one or more tomographic images, by at least one of the imaging devices, of the subject patient (see col. 12, lines 49-53);

a patient support structure extending through the openings of the first and second imaging devices during the formation of one or more images by at least one of the imaging devices; and the imaging device support structure forming a patient access area between the first and second imaging devices through which a caregiver can directly observe the subject patient between the

openings of the first and second imaging devices (see the space provided in-between the CT and PET imagers).

Townsend et al.'476 teach the axes of openings of the first and second imaging devices being substantially aligned (see Figure 2b). Furthermore, the spacing between the two bores is free of obstructions as indicated by Figure 2b and the two bores are physically fixed and connected to each other as described in col. 12, lines 46-48, while the patient support bed translates between the two aligned bores (see col. 12, lines 37-48).

The teaching of nuclear cameras inherently being used in PET and SPECT imagers is evidenced by Zhu'405 (see col. 4, lines 58-65).

Applicant's attention is invited to col. 10, lines 59-63, wherein the gantries are selectably movable with respect to one another along with the bed in order to obtain the images of interest. It would have been obvious to one skilled in the art at the time that the invention was made that the movement of either scanner could be at a fixed abutting position as the one taught by Figure 2b as that is one of the disclosed options of allowing access to the operator.

Regarding claim 2, Townsend et al.'476 teach a medical imaging apparatus, comprising:  
a first tomographic medical imaging device having an opening for receipt of a subject patient, the first imaging device comprises one of a group consisting of CT, MRI, X-Ray, and Ultrasound devices wherein the imaging information represents anatomical structure(see col. 12, line 49; referring to X-ray CT detector 12 in the first imaging device having an opening 16a; see element 16a in Figure 2b);

a second tomographic medical imaging device having an opening for receipt of the

subject patient and the second imaging device comprises one of a group consisting of SPECT and PET devices wherein the imaging information represents physiological functions of the patient (see col. 12, line 50; referring to PET detector 14 in the second imaging device see element 16b in Figure 2b);

an imaging device support structure securing the openings of the first and second imaging devices in a fixed spatial relationship and in alignment with an imaging axis during the formation of one or more tomographic images, by at least one of the imaging devices, of the subject patient (see col. 12, lines 49-53);

a patient support structure extending through the openings of the first and second imaging devices during the formation of one or more images by at least one of the imaging devices; and the imaging device support structure forming a patient access area between the first and second imaging devices through which a caregiver can directly observe the subject patient between the openings of the first and second imaging devices (see the space provided in-between the CT and PET imagers).

Townsend et al.'476 teach the axes of openings of the first and second imaging devices being substantially aligned (see Figure 2b). Furthermore, the spacing between the two bores is free of obstructions as indicated by Figure 2b and the two bores are physically fixed and connected to each other as described in col. 12, lines 46-48, while the patient support bed translates between the two aligned bores (see col. 12, lines 37-48).

Applicant's attention is invited to col. 10, lines 59-63, wherein the gantries are selectably movable with respect to one another along with the bed in order to obtain the images of interest. It would have been obvious to one skilled in the art at the time that the invention was made that

the movement of either scanner could be at a fixed abutting position as the one taught by Figure 2b as that is one of the disclosed options of allowing access to the operator.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-19, 21 and 22, 24-29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Townsend et al.'476 in view of Robinson'453.

Townsend et al.'476 teach all the features of the instant invention except for a fluid control surface positioned beneath the patient support structure and between the first and second imaging devices for directing liquids falling onto the surface from the vicinity of the patient support structure away from the subject patient.

In the same field of endeavor, Robinson'453 teaches a fluid control surface or a peripheral skirt positioned beneath the patient support structure capable of being placed at any surgical site of interest to drain the surgical area such as between the first and second imaging devices for directing liquids falling onto the surface from the vicinity of the patient support structure away from the subject patient (see Figure 1 and elements 56 and 52 draining in a curved type manner or arcuate structure into the draining apparatus 20 downward and away from the patient; also see col. 10, lines 49-67 and col. 11, lines 1-19).

It would have been obvious to one skilled in the art at the time that the invention was made to have modified Townsend et al.'476 and incorporated the feature of Robinson'453

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through the support table in order to allow for drainage in surgical procedures guided by imaging, while the patient is transferred in the imaging areas and in-between those areas.

Regarding claims 4-6, while Townsend et al.'476 do not specifically address the application of the apparatus for con-current surgical procedures, Townsend et al.'476 describes the improvements in imaging quality to provide precise localization of lesions for biopsy procedures (see col. 20, lines 3-11).

It would have been obvious to one skilled in the art at the time that the invention was made to have utilized the system to guide surgical procedures, as it is well known to skilled artisans to use imaging allowing for more precise procedures in surgery.



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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni Mantis Mercader whose telephone number is (571) 272-4740. The examiner can normally be reached on Mon. - Fri., 8:00 a.m.-6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eleni Mantis Mercader  
Primary Examiner  
Art Unit 3737

EMM